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# THE AGRICULTURAL SITUATION

MARCH 1, 1938

*A Brief Summary of Economic Conditions*



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NEWS OF THE MONTH was the enactment of the Agricultural Adjustment Act of 1938. Organization plans for administration of the act are under way; referenda will be held this month to enable cotton and tobacco growers to vote upon marketing quotas for this year's crop. A two-thirds favorable vote of producers is required to put the marketing quotas into operation. An interpretative analysis of the act appears on page 7 of this issue of *The Agricultural Situation*. \* \* \* Spring work is generally advanced over the South but, as a national average, farm labor employment is less than at this time last year because of recent declines in farm products prices and in farm income. Prices of farm products were indexed at 97 in mid-February, as compared with 127 in February 1937, but prospects over the near term are for a period of relatively stable demand conditions for agricultural commodities. \* \* \* Enactment of the Agricultural Adjustment Act is expected to affect importantly farmers' acreage planting intentions this spring. A report and interpretation of farmers' intentions will be issued by the Bureau of Agricultural Economics March 18.

# Commodity Reviews

## DEMAND: Fairly Stable

A PERIOD of relatively stable demand conditions for agricultural commodities is in view, compared with the sharp decline during the last 4 months of 1937. This drop accompanied the marked decrease in industrial production, employment, and payrolls.

During 1938, some irregular improvement is expected in industrial activity, but not enough to cause a material increase in demand for farm products. The main point of interest to farmers is that the big drop in demand seems to have been halted.

Examination of Federal budget figures and programs indicates some increase in the net contribution to purchasing power by the Government in coming months as contrasted with the immediate past when such contributions were at a low level in relation to preceding years. Recent legislation and other plans under discussion provide for Government cooperation designed to stimulate private spending.

United States exports of farm products recently have been the largest in more than 2 years, but this chiefly reflects changes in the supply situation here and abroad. Demand conditions have held up rather better in some foreign countries which buy American farm products, but recently some signs of weakness have appeared.

The decline in world prices of raw materials during 1937 has aroused much concern as affecting the course of world recovery. Stocks of primary products were greatly reduced from 1933 through the spring of 1937, but recently have been accumulating in some lines.

## FARM INCOME: Reduced

January farm income was 63 million dollars less than in December and 61 millions less than in January 1937.

The decrease during the last month of record was slightly more than

seasonal since income from marketings of crops declined more than the usual amount.

Income from livestock and livestock products decreased less than seasonally, since the heavier feeding of milk cows and increased hog slaughter caused a somewhat more than usual gain in income from these commodities.

Income from sales of all commodities except dairy products and cotton and cottonseed was less this January than last, the returns from cotton being supplemented materially by Government loans. About 23 million dollars was loaned to farmers on 533,000 bales of cotton in January.

Government payments to farmers under the agricultural conservation programs have been rather small in recent months, amounting to 17 millions in January this year, against 43 millions in January 1937. Payments during the next few months are expected to be larger than a year earlier, and substantially larger, by about 300 million dollars, than during the past few months.

Cash income from farm markets is expected to be less in coming months than a year earlier when the seasonally adjusted index of income increased sharply through June. Cash income from sales of farm products during the first 6 months of 1938 may be about 3 billion dollars compared with 3.5 billions during the first 6 months of 1937.

The following table gives the income for December 1936 and 1937, and for January 1937 and 1938.

	From marketings	From Government payments	Total
January:			
1938.....	\$603, 000, 000	\$17, 000, 000	\$620, 000, 000
1937.....	638, 000, 000	43, 000, 000	681, 000, 000
December:			
1937.....	675, 000, 000	8, 000, 000	683, 000, 000
1936.....	725, 000, 000	36, 000, 000	761, 000, 000

## PRICES: Down

Declines in prices of nearly all farm products, except hogs and cotton, lowered the index of prices to 97 as of February 15, as compared with 102 on January 15, and with 127 in February a year ago.

Grains gave up some of the price gains of the preceding month, but prices of hogs strengthened seasonally and cotton continued the gradual advance of the preceding month. Dairy and poultry products prices were sharply lower.

Index Numbers of Prices Received and Paid by Farmers  
(1910-14=100)

Year and month	Prices received	Prices paid	Buying power of farm products <sup>1</sup>
1937			
February.....	127	132	96
March.....	123	132	97
April.....	130	134	97
May.....	128	134	96
June.....	124	134	93
July.....	125	133	94
August.....	123	132	93
September.....	118	130	91
October.....	112	128	83
November.....	107	127	84
December.....	104	126	83
1938			
January.....	102	126	81
February.....	97	126	77

<sup>1</sup> Ratio of prices received to prices paid.

## Prices of Farm Products

Estimates of average prices received by producers at local farm markets based on reports to the Bureau of Agricultural Economics. Average of reports covering the United States weighted according to relative importance of district and States.

Product	5-year average, August 1909-July 1914	February average, 1910-14	February 1937	January 1933	February 1938	Parity price, February 1938
Cotton, lb.....	cents.. 12.4	12.3	12.4	7.9	8.1	16.2
Corn, bu.....	64.2	60.1	103.6	52.2	51.7	84.1
Wheat, bu.....	88.4	89.2	124.9	88.6	86.6	115.8
Hay, ton.....	dollars.. 11.87	12.02	11.84	8.79	8.71	15.55
Potatoes, bu.....	cents.. 69.7	66.3	130.2	54.1	54.6	89.9
Oats, bu.....	39.9	39.8	53.7	30.0	30.0	52.3
Soybeans, bu.....	do.. (1)	(1)	149.8	87.5	92.5	-----
Peanuts, lb.....	do.. 4.8	4.9	4.1	3.3	3.4	6.3
Beef cattle, cwt.....	dollars.. 5.21	5.11	6.48	5.93	5.80	6.83
Hogs, cwt.....	do.. 7.22	7.12	9.19	7.59	7.74	9.46
Chickens, lb.....	cents.. 11.4	11.1	13.6	16.7	16.0	14.9
Eggs, doz.....	do.. 21.5	23.7	20.1	21.6	16.4	28.8
Butterfat, lb.....	do.. 26.3	27.4	33.9	33.5	30.5	35.2
Wool, lb.....	do.. 18.3	18.5	31.6	21.6	20.2	24.0
Veal calves, cwt.....	dollars.. 6.75	6.77	8.21	8.32	8.23	8.84
Lambs, cwt.....	do.. 5.87	5.95	8.12	7.15	6.63	7.69
Horses, each.....	do.. 136.60	137.00	99.40	87.60	89.00	178.90

<sup>1</sup> Prices not available.

<sup>2</sup> Adjusted for seasonality.

## WHEAT: Big Carry-over

The largest carry-over of wheat—about 200 million bushels—in 3 years is indicated for July 1 next. But stocks will be smaller than during the period 1930-34, when the average was about 325 million bushels. The indications of carry-over are on the basis of disappearance to date plus prospects during the last half of the marketing year.

World supplies of hard milling wheats are small this year, so that all the hard winter wheat surplus in the United States is expected to move into export channels. Surplus supplies of hard milling wheats are produced principally in the United States, Canada, Argentina, and Soviet Russia.

Exports of wheat and flour from the United States from last July through January totaled about 48 million bushels in terms of wheat. It is expected that an additional 42 million bushels will move out by July 1 next. Stocks reports and prospects indicate that total domestic disappearance of wheat this year will be about 675 million bushels.

European buying, crop conditions in the hard winter wheat States, and general business sentiment continue



to influence wheat prices. Some increase in world acreage of fall-sown wheat is indicated for the next harvest. Crop conditions throughout Europe are generally favorable; in Soviet Russia combined sowings of winter wheat and rye are slightly more than the 1936 acreage.

### COTTON: Higher

Cotton topped 9 cents a pound in mid-February spot markets for the first time in more than 5 months. Exports this season through February 17—4,122,000 bales—were about 400,000 bales more than during the corresponding period a year earlier.

Improvement in domestic mill activity was noted in mid-February, although activity was much less than in early February of 1937. Buying by domestic mills was in moderate volume and largely for immediate needs. Wholesale and retail sales of all kinds of goods—textile and nontextile—were smaller than in the same period of 1937. Cloth prices were firm, but mill margins narrowed as cotton prices advanced.

On the cotton plantations the country over, interest centered in the new Agricultural Adjustment Act. Marketing quotas will be provided for the 1938 cotton crop, unless rejected by the growers voting in a referendum this month. The allotment for 1938 has been estimated at about 10,750,000 bales.

The allotment in terms of acres for 1938 will be about 26.4 million acres, apportioned among counties on the basis of the acreage planted during the years 1933-37. But the act provides that no county's allotment for 1938 and 1939 will be less than 60 percent of the cotton acreage planted in 1937, plus 60 percent of the acreage diverted from cotton in 1937 AAA programs.

Farmers who plant no more than their acreage allotment may sell without penalty all the cotton produced regardless of quantity.

### TRUCK CROPS: Damaged

Growing crops in southern areas were damaged by low temperatures in late January. In some sections of Florida, potato vines were wilted to the ground, and strawberries, snap beans, celery, and cabbage showed the effects of cold weather. In northern parishes of Louisiana, onions and cabbage were damaged. But there was no damage in Texas, and growing conditions in California have been favorable for most crops.

Shipments of new crop vegetables produced in the United States were a little less through early February this year compared with last, amounting to 50,261 cars compared with 53,720 cars a year ago. Sharp decreases from last season were reported on snap and lima beans, cabbage, carrots, peppers, spinach, strawberries, potatoes, and tomatoes; increased shipments were reported on beets, cauliflower, celery, green peas, and lettuce.

Market prices of old potatoes stabilized in February, but prices of new potatoes declined as shipments increased from Florida and Texas. Early January reports indicated an 11 percent increase in commercial acreage in the first section of early States this year compared with the area harvested in 1937, but average yields would result in a crop slightly smaller than in 1937.

A 6-percent decrease was reported for the second section of early States, but average yields would produce a crop about as large as the 1937 output. Somewhat smaller crops this year than last were indicated for other areas.

### CITRUS: Good Crops

Oranges and grapefruit were in good growing condition in mid-February, having escaped practically free of frost damage in Texas and Florida areas in late January. Supplies of oranges—excluding California Valencias—still to be marketed after February 15 were somewhat larger than at that time a year ago.

Total production of all winter and spring varieties of oranges—excluding California Valencias—was indicated by the BAE as of March 1, at more than 43 million boxes, compared with 38 million a year ago, and the 1931-35 average of 33 million. Production of California Valencias (the chief source of supply during summer and early fall) was indicated at more than 25.5 million boxes, or 50 percent larger than the small crop of last season.

The grapefruit crop was estimated at about 27.6 million boxes, compared with the record crop of more than 30 million last season, and the 5-year average of less than 15 million. California lemon production was indicated at above average—about 8.5 million boxes this year, compared with 8.1 million boxes last season, and the 5-year average of 7.2 million boxes.

### CATTLE: Fewer

The smallest number of cattle and calves on farms in 5 years was reported last month by the Bureau of Agricultural Economics—65,930,000 head, compared with 66,448,000 in 1937, and with the all-time high of 74,262,000 in 1934. The figures include cows and heifers kept for milk—24,902,000 head as of January 1 this year, compared with 24,991,000 in 1937, and with 26,931,000 in 1934.

But more cattle are on feed this winter than last, and although the 1938 slaughter of both cattle and calves is expected to be less than in 1937, heavier weights of the animals will offset part of the decrease in numbers slaughtered. Restocking in areas where cattle numbers were reduced by drought in recent years will result in fewer cows, heifers, and calves going to slaughter.

Consumer resistance to high beef prices last summer and lessened consumer buying power since then have been important factors in the sharp decline in livestock prices—amounting to more than 50 percent on the better grades of slaughter steers. But beef

is comparatively low-priced and of better quality now, and consumers again are showing interest in porterhouse steaks and rib roasts.

Despite the reduced slaughter supply of cattle in prospect this year, the general level of cattle prices is expected to average less than in 1937—affected chiefly by lessened consumer demand for all meats and by larger consumer purchases of pork than last year.

### HOGS: Moderate Advance

Hog prices advanced moderately in February on reduced marketings and stronger storage demand for hog products. Further gains are in prospect as slaughter supplies of hogs are reduced seasonally. But this may be followed by seasonal weakness in late spring and early summer as the market movement of fall pigs gets under way in large volume.

Nearly 2 million fewer hogs were slaughtered under Federal inspection in the first 4 months of the current marketing year as contrasted with the same period in 1936-37; but for the remainder of the marketing year, through September, farmers will likely send more hogs to market than a year earlier. Most of the increase is expected from May through August.

A feature of the marketing picture is the increase in the average weights of hogs marketed, average weights amounting to about 240 pounds at the seven leading markets in January, compared with about 220 pounds in January 1937. The heavier weights reflect the much larger supplies and lower prices of corn and other feeds this year.

The Bureau of Agricultural Economics reported last month the largest number of hogs on farms in 4 years—44,418,000 on January 1, compared with 42,948,000 on January 1, 1937, and with 39,004,000 on January 1, 1935. Practically all of the increase this year compared with last was in the Corn Belt States.

## LAMBS: Sharply Lower

Sharp price declines featured the early winter lamb situation, whereas usually there is a seasonal advance from December through April. Unfavorable factors have been the reduced consumer demand for meats and the reduced prices of wool and pelts.

Inspected slaughter of sheep and lambs in January was the third largest for January of Government record. Marketings of fed lambs during the remainder of the fed-lamb season, through April, are expected to be larger than a year ago, but the increase may be offset in part by smaller marketings of Texas grass-fat yearling lambs in March and April.

The number of lambs remaining in feedlots of the Northern Colorado, Arkansas Valley and Scottsbluff sections on February 5 was reported at 1,265,000 head, compared with 1,100,000 on the corresponding date a year ago, and with 1,295,000 two years ago.

Average live weights of sheep and lambs marketed in recent weeks have been much heavier than in the corresponding period a year ago.

## DAIRY PRODUCTION: Up

Milk production on February 1 was the largest in 4 years. The number of cows on farms is about the same as at this time last year, but the cows are giving more milk in response to heavier feeding.

Production of principal manufactured dairy products increased sharply during December; the prospect is for much larger production during the first half of 1938 compared with the same period in 1937.

Butterfat prices have declined sharply since the first of the year, but have remained relatively favorable compared with feed prices. The margin between foreign and domestic butter prices is much less than the amount of the import tariff, and butter imports have been small.

Prices of manufactured dairy products have been affected adversely by the increase in milk production and in production of products, and by the reduction in incomes and buying power of consumers. A favorable factor is the relatively low storage supply of products, especially of butter.

## POULTRY: Little Change

Egg prices strengthened following the early February break in terminal markets and are expected to do somewhat better. Boxed poultry were lower priced in late February, but live poultry were holding relatively steady. The general situation continues to be featured by the heavy production and large marketings of eggs.

Farmers have not been culling laying flocks so closely this winter; in January there was an increase of about 1 percent in the number of layers through additions of late hatched pullets. In January a year ago the number of layers was reduced about 2 percent.

On February 1, layings per hen were 25 percent above a year earlier, 33 percent more than the 10-year February average, and the highest of Government record for that date. Egg prices are low compared with usual winter prices, but the heavy total production of eggs and the low price of feed have been compensating factors.

Farm poultry producers reported last month they intend to increase purchases of hatchery chicks by about 8 percent this year over last. Increases were reported for all major geographic areas, only a few States showing smaller figures this year.

Largest increase—24 percent—was reported for New England; increases in the South Atlantic, East South Central, and Rocky Mountain States were reported at 15 percent; the West South Central region, 13 percent; the West North Central, 8 percent; Middle Atlantic, 6 percent; East North Central, 3 percent; Pacific Coast 1 percent.



# Agricultural Adjustment Act of 1938

**T**HE Agricultural Adjustment Act of 1938 provides for continuing soil conservation programs such as were in effect during the past 2 years. It adds provisions designed to stabilize supplies for five major commodities—cotton, wheat, corn, tobacco, and rice.

These commodities contribute a large part of the total farm income. They are nonperishables, and surpluses can be held in reserve for use in later years when they are needed. They are thus adapted to legislation that aims to establish larger reserves against periods of adverse growing conditions.

The legislation is expected to result in an increase of about 100 percent in the average annual carry-over of corn and 100 million bushels or more in the carry-over of wheat. The increased reserves of both corn and wheat are especially important with regard to bread and meat supplies. They will make a practicable beginning toward setting up the ever-normal granary which Secretary Wallace has so long urged.

The legislation is simple in general outline but goes into detail, since it provides operating formulas for procedures that formerly were left to administrative discretion. It spells out specifically the supply levels at which the control quotas go into operation; the conditions under which the various stabilizing measures are to be applied; the distribution of the market among farmers, and the administrative provisions of the act.

**T**HE act aims at certain supply levels for the five commodities. These levels are established in fixed percentages above normal supply, and, in most cases, are the sum of normal domestic and export requirements and increased carry-overs. The legislation aims to stabilize the supply levels of wheat at 130 percent of normal domestic consumption and exports, instead of 115 percent, which

previous carry-overs allowed. For corn, the reserve supply level is 110 percent of normal domestic consumption and export requirements, instead of 107 percent.

The shift from soil-depleting crops to soil-conserving crops under the conservation phases of the program will help stabilize supplies. Other stabilization phases include: storage of excess supplies outside of marketing channels; marketing quotas when supplies reach certain points; and crop insurance, which will apply only to wheat and will begin with the 1939 crop. Parity payments intended to narrow the spread between the producers' returns from the five commodities and parity are authorized when and if funds are provided.

Soil conservation payments are available to all farmers. The act provides a formula for scaling small payments upward, and sets the maximum at \$10,000, which in the case of individuals, partnerships, and estates, however, is the maximum within a State. Unless parity payments are provided, there is no provision for additional payments under the new act.

**L**OANS on stored commodities extended by the Commodity Credit Corporation are made as before on recommendation of the Secretary of Agriculture and the approval of the President and the Corporation. For corn, wheat, and cotton, under certain circumstances, however, these loans are made mandatory at fixed levels of price or supply, and the act fixes terms, amounts, and rates of loans. Loans are made available to noncooperators when quotas are in effect at rates 60 percent of the rate to cooperators.

Marketing quotas can be proclaimed only when supplies reach levels specified in the act, and then only if they are approved by two-thirds of producers voting in a referendum. A vote of more than one-third of the

producers against quotas is a quota veto.

The legislation initiates crop insurance, and, although it applies only to wheat, provisions are made for research with a view to extending a similar insurance plan to other commodities. Farmers will be insured against losses in yields, not against losses in price. The cost of the insurance protection to the farmer depends upon the loss experience of

his farm and his area. Premiums will build up reserves of wheat from which losses are to be paid, and these will add ever normal granary supplies. The act establishes the Federal Crop Insurance Corporation which will administer the plan.

The new act and the conservation program now in effect embody the experience gained in operation of these programs since 1933.

ALFRED D. STEDMAN.

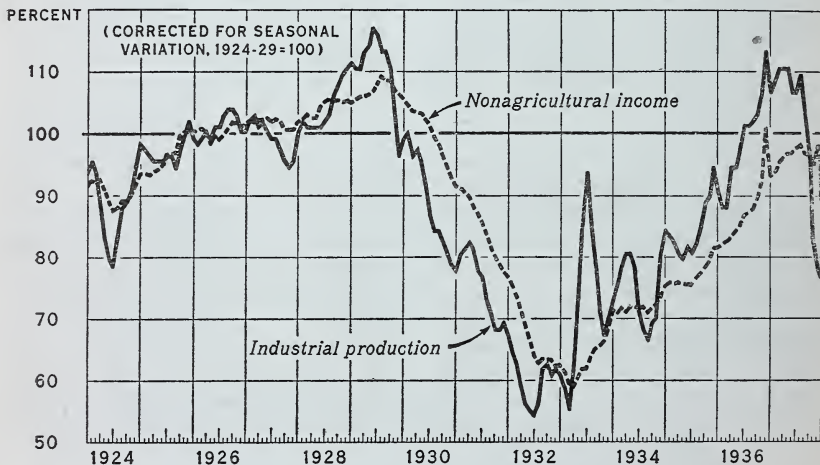
## Consumer Buying Power Reduced

**I**NDEXES of the monthly trend of industrial activity and of money income of consumers, from January 1924 to January 1938, inclusive, are shown on the accompanying chart. The domestic demand for farm products is derived basically from the volume of industrial activity and from the money income of consumers.

About three-quarters of all farm income from sales is derived from products used for food; and the total of retail expenditures for food, taking the country as a whole, is determined almost entirely by national income. In addition to income, physical measures of industrial activity are useful in analyzing the price and consumption outlook for the chief farm commodities, such as cotton and flaxseed, used for industrial purposes.

Though national income reached its 1937 peak in August, just before the abrupt decline in industrial production made an appearance, the recession in income may be expected to continue somewhat longer than that in productive activity. This is due to the fact that part of the total consumer income is made up of dividends and pay rolls among the service industries and these tend to decline somewhat longer than the decline in industrial production. In 1921-23 and in 1932-33 the farm products that depend largely on industrial activity experienced recovery before those dependent more on total consumer income.—L. H. BEAN.

MONTHLY INDEXES OF INDUSTRIAL PRODUCTION  
AND OF NONAGRICULTURAL INCOME, 1924-37



# Contract Feeding of Livestock

CONTRACT pasturing of livestock has been in operation in this country for approximately 50 years, but it was not until about 1930 that contract feeding of livestock was attempted in large volume.

In contract feeding a grower and a feeder enter into a contract whereby the grower agrees to supply the livestock to be fed and the feeder the feed, equipment, and labor for fattening the animals. In general, the grower risks his livestock and the feeder his feed and labor. The contract sets forth the various provisions for the apportionment of freight and other marketing expenses and the distribution of proceeds. Some contracts provide that animals will be grazed usually for a specified period. These are known as pasture contracts.

In most contract feeding or pasture operations the details involved in the enterprise are worked out with the assistance of a third party, known as a supervising agent.

CONTRACT feeding reached its peak in 1934. Available figures show that in this year 575,000 lambs and ewes and 50,000 cattle were fed under contract. Cooperative livestock marketing associations supervised about 40 percent of this volume.

The increase in contract feeding from 1930 to 1934 was brought about by three factors: curtailment of livestock credit, decline in the price of feeder cattle and lambs and fat stock, and relatively low values of grain and roughage. The drought situation which developed in 1934 gave great impetus to the contract feeding movement that year. Following 1934, prices of livestock improved and credit became more plentiful, with the result that contract feeding declined.

Contract pasturing did not follow the course of contract feeding the past

3 years. This method of handling stock has continued to play an important part in livestock operations.

One of the best examples of contract pasturing of livestock is the work done by the Texas Livestock Marketing Association, with offices at the stockyards at Fort Worth, Tex., and Kansas City, Mo. This association contracts grass for a large number of its ranchmen members each year. The cattle are moved from Texas to the Flint Hills of Kansas or the Osage country of Oklahoma in the early spring and are pastured until fall when they are shipped to terminal markets. For years this association has been developing a successful, orderly marketing program. The organization has control of the marketing of the cattle and are thus in a position to move them to whatever market will net the owner the most money. This past year the association handled approximately 100,000 cattle on this basis for Texas ranchmen.

THE sharp decline in livestock prices the past 5 months has again brought about an increased interest on the part of stockmen in contract feeding.

Recently a large feeder and pasture operator in Virginia sought assistance from the cooperative livestock associations in locating 1,500 yearling steers to pasture under contract this summer. This stockman has an abundance of feed and a good pasture range and wants to divide the risk and the opportunity for profit by working out a contract pasture deal with some ranchman in the West who wants to contract his feeder cattle believing that he can net more money by contracting them than by selling them outright to go to pasture. Many requests also have been received from stockmen in various sections of the country for information on contract feeding.

C. G. RANDELL.



# Cotton Skeins the World

**M**UCH misinformation has been spread as to the increased production of cotton in foreign countries. The truth is that in many instances much of the expansion in recent years was planned by foreign countries years ago as part of their national economy.

For years these countries have studied the results of American scientific and economic research not only in the production and marketing of cotton but of all other agricultural products. The objective in many cases was a self-sufficing agriculture; in others, the use of new lands to be brought into cultivation.

Increased foreign production of cotton during the last 5 years has been chiefly in five major cotton-growing countries — India, China, Russia, Egypt, and Brazil. These countries combined have expanded production during this period by an average of about 3.7 million bales as compared with the average of the preceding 5-year period. The remainder of the increase—about 900 thousand bales—has been distributed among 60 countries.

**P**RODUCTION in foreign countries increased considerably during and immediately following the American Civil War, but with the return of normal conditions in the United States production declined abroad. The United States soon regained its place in the cotton world. However, foreign countries continued to grow cotton, and production increased steadily for a number of years.

At the close of the last century foreign countries were producing approximately 4 million bales; by 1902 the foreign crop had exceeded 5 million bales; by 1912-13 the crop had reached 7 million bales. From 1913-14 to the close of the World War the foreign crop averaged well over 8 million bales.

About 1920-21 foreign production declined approximately 2 million bales, but this reduction was quickly regained and by 1923-24 the foreign crop ex-

Eight years ago the Bureau of Agricultural Economics sent P. K. Norris to Egypt to study at first hand the plans being made in that country to increase the production of cotton. Similar studies were projected covering China, India, Russia, and other cotton-growing countries. Since then, Mr. Norris has explored the cotton-growing regions of the Anglo-Egyptian Sudan, Turkey, Syria, Brazil, Mexico, India, Kenya, Uganda, Tanganyika, Burma, and many other of the 60 or more foreign countries which produce cotton. He has interviewed foreign agricultural officials and directors of experiment stations, studied their plans for increased production, and observed the application of these plans in the cotton fields of the world.

ceeded 10 million bales. From 1923-24 to 1932-33 the average foreign crop was approximately 11.5 million bales. The estimated average for the last 5 years (including the present estimated crop of about 18.5 million bales) is 16.4 million bales. This is an average increase of about 4.6 million bales over the previous 5-year average.

**I**NDIA, China, Russia, Egypt, and Brazil are old cotton-growing countries. The cotton from India and China formed a part of the early European trade with the Far East. Cotton was an established crop in Russia prior to the World War; production declined during the War, but in recent years Russia has regained its position as a cotton-producing country. Cotton was grown by the early Egyptians, but only since the American Civil War has Egypt become an important cotton country. Cotton growing in Brazil dates back to Colonial times.

Production in the five leading foreign cotton-growing countries varies greatly from year to year. The present crop of India is about 5.1 million bales while that of China is esti-



mated at approximately 3.5 million bales. Production in Russia has been increasing rapidly and the present crop is estimated at about 3.5 million bales. In Egypt a record crop is being harvested, current estimates indicating about 2.3 million bales. Trade reports indicate that the Brazilian crop will be about 1.9 million bales this year.

The crop in Egypt and India has fluctuated widely during the last 5 years but has not increased so rapidly as in China, Russia, and Brazil. The increases in India and Egypt have averaged about 550,000 and 350,000 bales, respectively; the combined increase in China, Russia, and Brazil is about 2.8 million bales.

**A** FEATURE of world cotton production has been the increase in several minor countries, principally Uganda, Argentina, the Anglo-Egyptian Sudan, Chosen, Turkey, Persia, Peru, Mexico, and the Belgian Congo. Fifty other countries grow cotton, but most of these countries individually are relatively unimportant in cotton production; as a group they have added about 900,000 bales to the increase during the last 5 years. Increases in some of these countries seem large expressed in percentage, but they are relatively unimportant in actual bales.

Countries where cotton is well established—China, Russia, and Brazil—are capable of making the greatest increases. India and Egypt have not increased production so much, due to physical, social and economic limitations. India, with its 350 million population has many interfering problems connected with the food supply. In China increased industrialization

has increased the local demand for cotton textiles so that Chinese farmers now find it more profitable to grow cotton and buy food.

Increased cotton production in Russia has been due entirely to a government-controlled program; the area to be planted has been definitely controlled by decree for a number of years. Russian consumption of cotton also has increased. Recent increased production in Egypt indicates some expansion of cultivatable land made possible through more extensive irrigation and a larger supply of available water. The increase since 1932-33 in Brazil is in response to a demand for a crop that will supplement the declining income from coffee.

**E**NCOURAGEMENT given by foreign government agencies, aided by associations for the promotion of cotton production, is responsible for the expansion in several of the newer or minor cotton-growing areas. Most of the European governments with African colonial possessions have been active for a number of years in the promotion and expansion of cotton within their areas.

Many foreign government agencies also have given indirect encouragement to cotton expansion. The construction of railroads, highways, bridges, and other general improvements for general purposes has incidentally stimulated cotton production in a number of the new cotton-growing areas. And as economic conditions in the older cotton-growing countries have improved, the people have become more aware of the opportunities for alternative crops and for crops producing cash incomes.

P. K. NORRIS.

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A new high record consumption of ice cream in 1937 is suggested by trade reports and other available data. The preceding high was in 1929, when commercial production totaled 254,618,000 gallons. About one-third of the total production and consumption is in the North Atlantic States, and about one-fourth in the East North Central States. From 1933 through 1936 there was a 64-percent increase in the United States total production, the output in 1936 aggregating 243,551,000 gallons.



THE tendency toward large-scale organization is to be found in nearly all branches of the food industries. It is exemplified by the growth of the national chain-store systems, dairy corporations, baking companies, and similar-sized organizations in other lines of food processing and distribution.

In general, the period of most rapid growth of such corporations was during the decade of the 1920's. At the beginning of the depression most food corporations stopped their expansion programs, although this does not necessarily mean that such programs will not be resumed with the return of more prosperous business conditions.

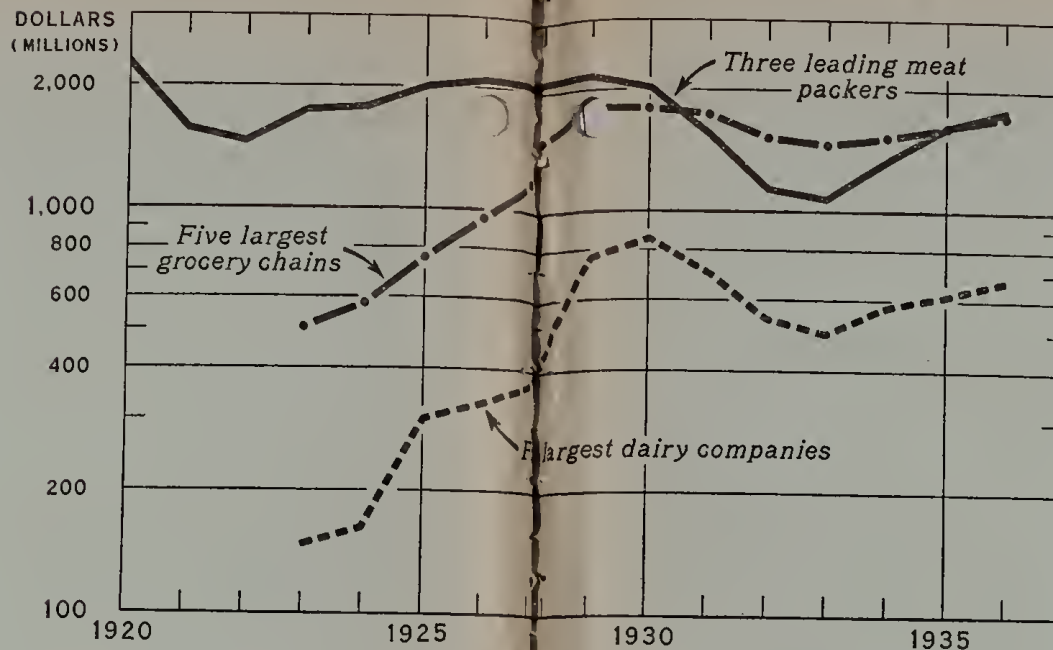
THE most striking development from the standpoint of innovations in distributive methods has been in grocery retailing. In a field of enterprise thought to be particularly adapted to the small business unit, grocery chains comprising thousands of stores and operating on a national basis were developed within the short span of a generation. The impact of the grocery chain has not been limited to retailing. Most of the chains have also integrated the function of wholesaling for their retail units, and the larger systems have gone into some lines of food manufacture.

The combined sales of the five largest grocery chains increased from \$503,000,000 in 1923 to \$1,805,000,000 in 1929. Since that time their dollar sales have fluctuated about in proportion to changes in food prices, their physical volume thus having remained approximately the same. In 1929, the sales of these five chains represented 25 percent of the total sales in all grocery and combination stores as reported by the Census of Distribution. Their proportion in 1935 was about the same as that of 1929.

DAIRY manufacturing and distribution is another field in which the growth of large-scale corporations has been especially rapid. The two

leading corporations are the National Dairy Products Corporation and the Borden Company. Both have facilities for manufacturing dairy products in producing regions, as well as for fluid milk distribution in the larger cities. The former purchased the assets of the Kraft-Phenix Cheese Corporation in 1930; this gave it control of extensive facilities for the distribution of cheese and related products.

## DOLLAR SALES OF LEADING GROCERY CHAINS, DAIRY COMPANIES, AND MEAT PACKERS, 1920-36



U. S. DEPARTMENT OF AGRICULTURE

NEG. 3411D

BUREAU OF AGRICULTURAL ECONOMICS

## Large-Scale Organization in the Food Industries

The post-war tendency toward large-scale organization in the food industries is one of the most important agricultural marketing developments of this century. Corporations distribute food products on a national scale and in some cases bridge the entire gap between producer and consumer. The introduction of mass methods by such corporations has changed the mechanics of processing and marketing of food products. It has important implications for competition and price-making.

Farmers and consumers have a vital interest in this subject: (1) They want the distributive mechanism for farm products as efficient as possible; (2) they realize that as the handling of food products becomes concentrated in fewer hands there is increasing need for public scrutiny and regulation in the public interest.

The combined sales of the four leading dairy companies increased from \$300,000,000 in 1925 to \$854,000,000 in 1930. These combined sales represented 15 percent of the estimated sales value of all dairy products in 1925, 35 percent in 1929, and 39 percent in 1935. Their proportion of dairy products is not so high as these figures would indicate, since the companies handle some additional commodities.

The big meat packers also have been important factors for years in the distribution of butter and cheese. Mention should also be made of the Carnation Company, the Pet Milk Company, and the Whitehouse Milk Company (subsidiary of the Great Atlantic and Pacific Tea Company), which together manufacture nearly 45 percent of all condensed and evaporated milk.

MEAT packing for many years has been largely centralized in the hands of a few large companies. The last 15 years have therefore not witnessed the changes which have taken place in most other food industries. During and immediately following the World War there was some tendency toward decentralization in meat packing as small interior plants sprang up throughout the Corn Belt; more recently the big packers have acquired some of these interior plants, so that control is again tending slightly toward centralization although slaughter remains partially decentralized.

Other large-scale enterprises in the foods field include three flour milling companies which, the Federal Trade Commission has reported, milled nearly 30 percent of the total flour output in 1934, and three companies which baked 20 percent of the bread. Two corporations canning fruits and vegetables had combined sales of more than \$135,000,000 in 1936. The most ramified food distributors include General Foods Corporation and Standard Brands, Inc., both of which manufacture and distribute a wide variety of highly-advertised products.

BASIC to this whole development have been certain technological factors making for bigger units in food distribution. New techniques have been discovered for processing and manufacturing farm products, some of which require large capital investments and can be used to advantage only by large concerns. Another factor has been the improvement in methods of transportation and com-



munication which has made it possible to conduct business enterprises on a wider scale. Coupled with these causal forces have been reductions in distributive costs through vertical integration and bargaining advantages over smaller competitors.

Whether or not the future trend will be toward still larger units is of course conjectural. Despite the growth of large-scale handlers, concentration of control in the food industries does not

yet approach that found in many lines of industrial production. For technological as well as other reasons this will probably continue to be true for many years, although the developments of the past several decades appear to make this less certain than it once was.

A. C. HOFFMAN.

NOTE.—A discussion of earnings of food and tobacco corporations will be presented next month.

## Distribution of Agricultural Employment: Regional Differences

FOR purposes of comparing the distribution of farms and of hired farm laborers by the number of hired laborers per farm for the several census regions, the data for any given date are unsatisfactory because of the varying seasonal significance which that date may have in the separate regions. It is considered advisable, therefore, to use data representing the estimated average distributions for 1935<sup>1</sup> rather than data shown for January by the census or data estimated for the respective peaks. The table below shows for the United States and the several census regions, the total number of farms, and the estimated 1935 average number of farms with one or more, three or more, and five or more hired laborers per farm.

U. S. and Regions	Total number of farms	Estimated 1935 average number of farms with—		
		1 or more hired laborers	3 or more hired laborers	5 or more hired laborers
U. S. ....	6, 812, 350	1, 272, 457	150, 569	58, 121
N. Eng. ....	158, 241	42, 994	4, 846	1, 633
M. Atl. ....	297, 684	96, 667	8, 137	2, 695
E. N. Cent. ....	1, 083, 687	241, 178	12, 192	3, 560
W. N. Cent. ....	1, 179, 856	221, 226	10, 957	2, 816
S. Atl. ....	1, 147, 133	215, 589	32, 698	12, 177
E. S. Cent. ....	1, 137, 219	105, 490	13, 389	4, 754
W. S. Cent. ....	1, 137, 571	172, 632	26, 167	10, 768
Mount. ....	271, 392	64, 010	12, 365	4, 749
Pac. ....	299, 567	112, 671	29, 818	14, 969

Farm employment increased seasonally in January, but the number of hired hands on February 1, was less than on that date a year ago—71 hired hands per 100 farms of crop reporters compared with 76 on February 1, 1937.

Employment of hired farm labor was less in all regions except the West North Central, West South Central, and Mountain States. The reduction in number of hired workers as compared with a year ago is attributed chiefly to the recent declines in farm products prices and in farm income.—Ed.

THE column showing total number of farms is included for purposes of perspective. For purposes of comparing in a general manner the relative prevalence of "family" as against "business" farms the ratio of all farms to the number hiring some labor provides a partial guide. For the particular purpose of describing the farms with which hired labor is associated, however, farms without any hired laborers are not of direct concern.

A knowledge of the extent to which those farms which employ hired laborers employ more than just one or two is, however, of direct concern. In considering the advisability of applying to agricultural wage workers social legislation similar to that for



wage workers in other lines of production, which is the connection in which this study was undertaken, it is important to know to what extent agricultural wage workers are on farms hiring a sufficient number of laborers to warrant the assumption that their employment status is essentially of a "business" rather than of the personal or family nature which may characterize the employment status when there is a single hired hand.

In these terms, therefore, the extent to which farmers employ laborers in larger rather than in very small numbers and the extent to which farm laborers are associated with farms of these different classifications provide a useful basis for comparing the several census regions.

**T**HE West North Central, East North Central, Middle Atlantic, and New England regions show a relatively small proportion of farms, among those hiring labor, with more than one or two hired hands. In the West North Central and East North Central regions, it is estimated that, during 1935, only 5 percent and 5.1 percent, respectively, of the average number of farms hiring labor employed 3 or more hired laborers. In the Middle Atlantic States this percentage was 8.4 and in the New England States it was 11.3, just slightly under the percentage of 11.8 for the United States as a whole. In extreme contrast to these regions are the Pacific and Mountain regions in which the percentages are respectively 26.5 and 19.3. The percentages which

approach the figure for the United States as a whole from above are 15.2 for both the West South Central and South Atlantic States and 12.7 for the East South Central States.

**I**N the following table of the estimated average number of hired laborers on farms, the several regions take similar relative positions and wide differences are again apparent.

U. S. and Regions	Estimated 1935 average number of hired laborers on farms with—		
	1 or more hired laborers	3 or more hired laborers	5 or more hired laborers
U. S. ....	2, 245, 016	937, 008	623, 113
N. Eng. ....	71, 805	26, 720	16, 013
M. Atl. ....	148, 778	46, 252	23, 227
E. N. Cent. ....	311, 109	55, 497	27, 078
W. N. Cent. ....	283, 264	48, 288	21, 574
S. Atl. ....	405, 383	187, 569	118, 982
E. S. Cent. ....	178, 925	70, 186	41, 205
W. S. Cent. ....	350, 067	176, 388	124, 600
Mount. ....	131, 941	67, 462	41, 887
Pac. ....	363, 744	258, 646	208, 547

In the West North Central region only 17 percent of the estimated average number of hired laborers employed on farms during 1935 was on farms with three or more hired laborers. The percentage on farms with three or more in the East North Central region was 17.8 and in the Middle Atlantic and New England regions the percentages were 31.1 and 37.2, respectively. The Pacific region shows a large and contrasting percentage of 71.1. The Mountain shows 51.1 percent, and the West South Central, South Atlantic and East South Central show, in order, 50.4, 46.3, and 39.2.

**T**HE comparisons here made utilize tentative estimates of the distribution of farms and hired laborers and these distributions are only one gauge of the employment status of hired farm labor. Using these distributions as a guide, however, it appears that the employment status of farm labor differs sufficiently among regions to jeopardize the success of social legislation which fails to take such differences into account.

JULIUS T. WENDZEL.

<sup>1</sup> The assumptions underlying the estimate of distributions for the several months other than January (in this article and in "Distribution and Seasonality of Agricultural Employment" in the February issue of *"The Agricultural Situation"*) are: (1) That the changes from January in the average number of hired laborers per census farm were similar to such changes for crop reporting farms; (2) that the average relationship which held in January 1935 between the average number of hired laborers per census farm and the distribution of census farms according to the number of laborers hired on them, also held for the other months of that year. The Bureau of Agricultural Economics is now engaged in a revision of its index of employment designed to make it representative for all farms. Data for making a complete test of the second assumption have not been available but a partial test indicated no likelihood of extensive error.

# United States Again Exports Grain

FOR the first time in several years the United States has become an important exporter of cereals. This is due to a favorable domestic harvest in 1937 and below-normal crops in foreign countries.

Starting in 1934 and continuing until the middle of 1937 the United States was an important importer of cereals. During this period imports of all the important cereals, except rice, exceeded exports.

These large imports were due to a series of droughts in the United States and to the short supplies and resultant high prices. Probably for the first time in the history of this country the import duty on wheat was fully effective throughout almost an entire marketing season. In other words, the domestic price of the types of wheat imported was consistently higher than prices in world markets by the full amount of the import duty.

A somewhat similar situation existed in regard to other grains. This not only encouraged imports, but practically prohibited exports. The imports had little effect on domestic prices since it was the high prices which caused the imports; moreover, all of the grain was imported at rates of duty established under the tariff act of 1930.

IMPORTS of wheat for consumption approximated 35 million bushels during 1935-36 and again in 1936-37,

compared to average imports during the years 1925-26 to 1929-30 of only a little more than 400 thousand.

Imports of corn reached a peak of more than 103 million bushels in 1936-37 compared to average imports during the 1925-26 to 1929-30 period of about 1,650,000. Imports of corn probably would have been much larger in 1936-37 except for the fact that livestock numbers in the United States were greatly reduced, necessitating less corn for feeding. Feeding practices, also, were materially changed to provide for the utilization of feeds other than corn. The deficit in our corn supplies in 1936-37 could not have been made up had we imported all of the corn produced in foreign countries.

With a return to more nearly normal production in 1937, imports of all cereals except rice have shown a very sharp decline. Imports of wheat during the first 7 months of the current marketing year were less than 3 percent of the quantities imported during the corresponding period last year. The same is true, in general, of rye, barley, and oats.

Imports of corn during the first 4 months of the current marketing year beginning October 1 were only about 1.5 million bushels, compared with more than 24 million for the same period last year. Imports of important cereals are shown in the accompanying table.

UNITED STATES: Imports of Specified Cereals, July-June, Average 1925-26 to 1929-30, Annual 1934-35 to Date

Period	Wheat, including flour <sup>1</sup>	Rye, including flour	Barley	Oats, including oatmeal	Corn <sup>2</sup>	Rice
	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 bushels	1,000 pounds
Average: 1925-26 to 1929-30.....	431	0	0	207	1,647	63,001
Annual:						
1934-35.....	15,569	11,250	10,978	15,645	36,952	70,431
1935-36.....	34,658	2,266	648	110	21,089	57,116
1936-37.....	34,456	3,943	17,151	168	103,643	156,275
July-January:						
1936-37.....	28,219	3,861	8,994	113	<sup>4</sup> 24,225	88,639
1937-38.....	674	0	1,164	9	<sup>4</sup> 1,548	78,098

<sup>1</sup> Imports for domestic consumption, excludes wheat imported for milling in bond and reexport.

<sup>2</sup> October-September year.

<sup>3</sup> Estimated.

<sup>4</sup> October-January.

**D**EVELOPMENTS in respect to exports of cereals from the United States have been the reverse of those in respect to imports. For many years wheat has been our most important grain for export, and during the period 1925-26 to 1929-30 exports of domestic wheat and flour expressed in terms of wheat averaged about 155 million bushels annually. During the marketing season 1935-36, however, exports were only about 4 million bushels. A large part of these exports were in the form of flour, the export

trade in which has been much better maintained than that of wheat as grain.

During the current marketing season, beginning last July, exports have increased greatly. Exports of wheat and wheat flour made wholly from domestic wheat for the first 7 months of the current marketing season were about 48 million bushels compared with about 5 million bushels during the corresponding period last year. Exports of rye, barley, and oats also have shown increases this season, as indicated in the following table.

**UNITED STATES: Exports of Specified Cereals, July-June, Average 1925-26 to 1929-30, Annual 1934-35 to Date**

Period	Wheat, inc. flour <sup>1</sup>	Rye, inc. flour	Barley	Oats, inc. oatmeal	Corn <sup>2</sup>	Rice
	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 bushels</i>	<i>1,000 pounds</i>
<i>Average: 1925-26 to 1929-30-----</i>	154,686	14,556	31,869	17,754	21,497	268,907
<i>Annual:</i>						
1934-35-----	10,531	0	4,050	1,147	701	122,704
1935-36-----	4,207	9	9,886	1,430	511	84,529
1936-37-----	9,267	248	5,153	912	136	51,846
<i>July-January:</i>						
1936-37-----	4,956	1	3,820	515	<sup>3</sup> 51	22,742
1937-38-----	48,253	4,264	11,363	7,756	<sup>3</sup> 18,937	202,827

<sup>1</sup> Excludes exports of flour from imported wheat milled in bond.

<sup>2</sup> October-September year.

<sup>3</sup> October-January.

The greatest change in exports however, has occurred in respect to corn. Exports of corn during the first 4 months of the current marketing season were about 19 million bushels compared with only 51 thousand during the corresponding period last year and about 21.5 million, our average annual exports during the years 1925-26 to 1929-30.

Due to short corn crops in foreign countries, it is expected that the exports of corn from the United States will continue in substantial quantity

during the remainder of the marketing season.

A marked increase has also occurred in our exports of rice, which amounted during the first 7 months of the current marketing season to about 203 million pounds, cleaned basis, as compared to less than 23 million pounds during the corresponding period last year. Exports to date this marketing season are already in excess of exports during any complete year since 1930-31.

D. F. CHRISTY.

Foreign wool markets improved in December, but failed to maintain the gain in January, and prices turned weak both here and abroad. Improvement in this country will depend partly upon recovery in mill consumption.

The Bureau of Agricultural Economics recently reported 52,918,000 head of sheep and lambs on farms and in feed lots as of January 1, 1938, or 330,000 more than on January 1, 1937. Fewer stock sheep but an 11 percent increase in the number of lambs on feed were reported.



# Regional Shifts of Vegetable Acreage

**V**EGETABLES other than potatoes and sweetpotatoes are produced annually for sale on more than 600 thousand farms. The number of farms producing these crops has increased only slightly, but the total acreage devoted to them has increased greatly during the last 40 years.

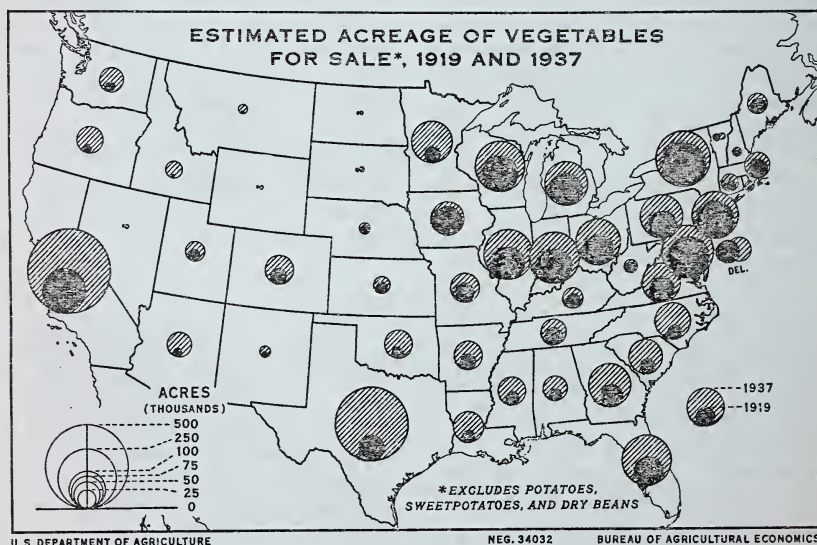
The increase in acreage has been especially marked during the last 20 years. The increase has been the result of an increase in the average acreage per farm, from approximately 2 acres per farm in 1900 to nearly 3 acres in 1919 and to about 4.5 acres in 1929. There is evidence that the trend toward larger units has continued since 1929; the average probably was close to 6 acres per farm in 1937.

Although the acreage of vegetables for sale averages only about 6 acres per farm for the country, individual units vary from small garden plots to large fields of hundreds of acres. The sharp increase in acres per farm in recent years has been brought about by some important shifts in the last 2 decades.

**V**EGETABLE production for sale had its origin in the areas adjacent to larger cities and towns, where manufacturing and trade became profitable.

As these business enterprises became sufficiently important for a portion of the population to devote full time to them, a definite market was created for the production of food by others. This development created a ready market for all kinds of perishable products which could be produced in close proximity to these centers.

Because of their perishability, it was imperative at first that fresh vegetables be produced near the market. But, as transportation and distribution facilities became available, the centers of production moved farther away from the cities into more fertile and low-cost producing areas. An important development was the invention of refrigeration and heating facilities in transit. Still another, especially in the last 2 decades, was the increase in the incomes of urban consumers. In the last decade the improvement in highways, making rapid transit via the auto trucks possible, has had a great influence on the production of vegetables in areas distant from the principal consuming centers. All these developments have contributed to the expansion of vegetable production in areas where climate and





soil conditions are favorable and production costs are relatively low. This growth during the last 2 decades has been substantial in nearly every State, but it has been tremendous in some of the Southern and far-Western States. The expansion has also been marked in some Eastern and North Central States, where industrial development has been rapid and soil and climatic conditions were favorable to the expansion of market garden areas.

**I**N THE South, in such States as North and South Carolina, Georgia, Florida, Mississippi, Louisiana, Oklahoma, and Texas, vegetable production has made a large growth in the last 20 years. The Eastern Shore of Virginia and Maryland has been an important vegetable producing area for a long time and, consequently, has not shown as rapid growth recently as in some of the newer areas. In North and South Carolina the acreage in vegetable production in 1937 was more than six and five times, respectively, the acreage in 1919; in Georgia and Florida the 1937 acreage was more than three times the acreage nearly 2 decades ago.

In the South Central States vegetable production for sale was relatively unimportant 20 years ago, but it has grown rapidly in the last 2 decades. In Texas, for instance, the acreage of vegetables for sale in 1937 was about eight times the 1919 acreage. On an acreage basis this State moved from twelfth to second place from 1919 to 1937. Also in this general area are Louisiana with an acreage in 1937 about 6 times that in 1919, Oklahoma five times, and Alabama and Mississippi about four times.

The rapid increase in the output of vegetables in all the Southern States was a direct result of an improvement in transportation and distribution facilities, which made possible the handling of perishables during the winter and early spring months. Practically all of the production of these areas is marketed during the period December to May.

The crops grown in southern Florida, Texas, and California begin the new marketing season in early winter, and the center of production gradually moves northward as the season advances. In September and October the Northern States market their crops before the first fall frosts. Each State has a definite place in the marketing season, and consumers are given an opportunity to purchase fresh vegetables the year around.

**T**HE vegetable acreage in some of the far-Western States also has made a remarkable growth during the last 2 decades. In Idaho, for instance, the acreage in 1932 was approximately 11 times that in 1919, in Oregon 8 times, in Arizona and Washington about 7 times, and in Montana 6 times the acreage nearly 20 years ago.

Acreages in these States were not large relative to those in other States, but they have shown tremendous growth in the last 2 decades. In California, where the largest acreage per State is located, there has been considerable growth, the acreage in 1937 being about 3.5 times as large as in 1919. In the latter year California, having close to 150,000 acres in vegetables for sale, was the ranking State. The acreage in 1937 was slightly more than 500,000 acres and the State still ranked first. Because of the year-around favorable climatic conditions, California can market certain varieties of vegetables in every month of the year.

**I**N THE North Central and Northeastern States, commonly spoken of as the late vegetable producing areas, there has been considerable expansion of acreage during the last 2 decades. In Minnesota the acreage devoted to vegetables for sale in 1937 was about six times the acreage in 1919. In Missouri, Wisconsin, Michigan, Illinois, Indiana, and Ohio the acreage has about doubled in the last 20 years. It is in these States that vegetables for canning are important.

The Northeastern States also have shown considerable growth in vege-

table acreage during the last 20 years. Pennsylvania, Connecticut, Rhode Island, and New Hampshire have shown the greatest percentage increases, but the actual increase in some of the other States, such as New York and New Jersey, has been substantial.

**F**OR the entire country, the acreage of vegetables other than potatoes and sweetpotatoes has nearly trebled during the last 20 years. The com-

mercial acreage of vegetables for fresh market shipment in 1937 was a little more than three times the acreage in 1919; the acreage of vegetables for canning was about twice as large, and the acreage in market-garden crops and others nearly 3.5 times as large as in 1919. A little more than 4,200,000 acres were planted to all these crops in 1937, as compared with slightly more than 1,500,000 acres in 1919.

GUSTAVE BURMEISTER.

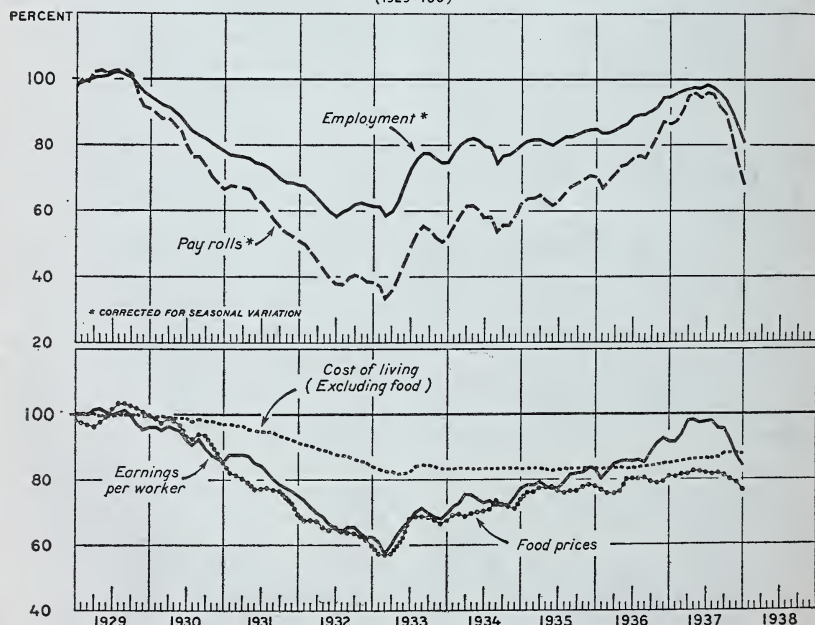
## Living Costs and the Factory Worker

**W**ORKERS in factories usually feel the effects of changes in productive activity more quickly than the workers in transportation, service, and many of the other nonagricultural pursuits. The accompanying chart shows the trend of employment and pay rolls in manufacturing industries, by months, from January 1929 through

January 1938, and compares the trend of income per employed worker in manufacturing with the trends of food and other living costs.

The decline in income of employed factory workers from 1929 to early 1933 closely paralleled the fall in retail food prices. Similarly, the recovery in per capita incomes and food

FACTORY EMPLOYMENT, PAY ROLLS, EARNINGS PER WORKER, AND COST OF LIVING  
(1929 = 100)



prices followed almost parallel courses up to mid-1935; but for the following 2 years earnings per employed factory worker increased considerably faster than food costs. During this 2-year period there was a 17 percent increase in real income of employed factory workers, in terms of food costs.

Since August 1937 the per capita income of factory workers has dropped much faster than the decline in food prices. As a result the per capita income of factory workers was 8 percent lower in January 1938, in terms of retail food prices, than in the preceding August although it was still 10 percent higher relative to food costs than in 1929.

**T**HAT a substantial portion of the 68 percent gain in factory employ-

ment between March 1933 and July 1937 was attributable to the improved rural conditions which accompanied recovery from the 1932-33 period of disastrously low farm prices was shown in *The Agricultural Situation* of December 1, 1937, in an article entitled "Interdependence of Agriculture and Industry." The stimulus to increased nonagricultural employment incident to gains in the rural purchases of industrial products was, of course, not confined to factory employment alone, but permeated the entire economy, being converted into increased buying power for those engaged in transportation and in the various service industries as well as for the factory workers.

P. H. BOLLINGER

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## Big Cottonseed Crop Stops Oil Imports

Stocks of fats and oils and of the raw materials for their production are the second largest on Government record. Principal factors in the increase are the record cottonseed crop of 1937, and the near-record soybean crop.

Prices of practically all fats and oils have been much less this winter than last; cottonseed oil at southeastern mills in January averaged 6.2 cents a pound, compared with 10.4 cents in January 1937. Refined soybean oil at New York was selling at 8.6 cents a pound compared with 12.2 cents a year ago.

Cottonseed oil is being used increasingly in the manufacture of cooking fats. Consumption of compounds and vegetable shortenings has exceeded that of lard in the last 3 years, and may do so in 1938 because of the plentiful supply and the cheapness of the oils used in these products.

**T**HERE have been practically no imports of cottonseed oil during the past 5 months, imports having been effectively barred by the record domestic cottonseed crop of 1937. Imports

of all fats and oils are expected to be less this year than last, when imports were the largest on record—more than 2.7 billion pounds.

For many years, the United States has been on an import basis as to vegetable oils and oilseeds, and prior to 1935 was a net exporter of animal fats. Preliminary estimates indicate that net imports of vegetable oils plus oil equivalent of imported raw materials totaled about 2,550 million pounds in 1937 or nearly 400 million more than in 1935, the highest previous year.

The major part of the increase was largely of flaxseed and copra; palm-kernel, palm and cottonseed oils, and marine animal oils. The demand for drying oils has been good but domestic production of flaxseed has recently been low, and imports of flaxseed and tung oil in 1937 were the largest on record. Soap oils also contributed heavily to increased imports.

Imports of coconut oil in 1937 were the largest since 1929, of copra the largest since 1933, and of palm oil the largest on record—411 million pounds compared with 339 million in 1936.



Palm oil, formerly considered a soap oil, is now extensively used in compound shortenings.

Cottonseed oil imports—principally from Japan, Brazil, and China—during the first 9 months of 1937 were the largest on record, amounting to about 200 million pounds, but there were practically no imports in the last quarter of the year.

During the year, manufacturers of oleomargarine used increasing quan-

ties of cottonseed oil instead of the coconut oil formerly used in this product. Factors in the increase were the large supply of cottonseed oil, the cumulative effect of Federal excise taxes on foreign oils and the effect of State taxes on oleomargarine manufactured from other than specified oils such as cottonseed, corn, peanut, and soybean oils, and animal fats.

ANNE DEWEES.

## Farm Production at New High Record

**N**INETEEN THIRTY-SEVEN production of agricultural commodities for sale or for consumption in the farm home was the largest in 19 years of Government record.

Production of grains, meat animals, poultry products, and tobacco was less than in some interim years, but production of fruits, vegetables, truck crops, cotton, cottonseed, and poultry products topped former figures.

All products combined totaled more than the preceding high record in 1931. The index of production in 1937 was 108 percent of the 1924-29 average, compared with 95 in 1936, and with the previous record of 107 in 1931.

Production of crops as a group in 1937 was 113 percent of the 5-year base period, compared with 80 in 1936, and with the preceding high record of 106 in 1928; production of livestock and livestock products was 104 compared with 108 in 1936, and with the record high of 109 in 1931.

The records of agricultural production since 1919 show that production of grains has tended downward since 1920; they show wide annual fluctuations in fruits and vegetables with a slight upward trend during the 19-year

period, and a marked upward trend in truck crops the production of which has more than doubled since 1918. Cotton production trended markedly upward from 1921 to 1926, but there has been little trend in production since then.

Production of meat was fairly stable during the 1920's, but from 1931 to 1934 it was somewhat above average. Unusually heavy production in 1934 was partly the result of forced selling of breeding stock because of drought; in consequence, production in 1935 was the smallest since 1919, when production records first became available.

Dairy production tended upward each year from 1919 to 1931; in the last 6 years production has been fairly stable. Poultry production also increased sharply from 1919 to 1931, but in recent years has been slightly below the level of 1930 and 1931.

Increased production of livestock and livestock products accounted chiefly for the upward trend in volume of all agricultural production from 1919 to 1926. Since then there has been practically no trend either way in total output of agricultural products, increases in some years being offset by reductions in others. C. M. PURVES.

Large supplies of raw wool and no immediate prospect for recovery in mill consumption feature the wool situation. Stocks of wool in the United States on April 1, when the new domestic clip becomes available, are expected to be much larger than a year earlier.

Imports of wool have declined sharply since last May; in November and December the imports were 70 percent less than in the same months of 1936. The large supply in this country, plus the failure of mill consumption to improve in recent months, will effectively bar heavy imports of this commodity in 1938.

# World Agricultural Census—in 1940

PLANS for another World Agricultural Census—for 1940—are well under way at the International Institute of Agriculture at Rome. Statisticians representing some 20 countries met in December at the Institute and outlined the project. There is evidence of great improvement in statistical work during the past decade, and it is expected that the 1940 census will be much more complete than the first census in 1930.

The Institute is now the most representative international organization operating under an international convention for mutual cooperation in the collection and exchange of economic information. The countries and their dependencies which have signed the convention under which the Institute operates represent about 96 percent of the world area and 97 percent of its population.

The work of the Institute has continued to be shifted more generally to economic questions and to analyses of

the influence of trade barriers, autarchy, and others of the newer government policies upon agriculture. The Institute issued a world survey of the cotton situation in early 1937. It is keeping this survey up to date from month to month.

World meat production and trade also have been reviewed, and an extensive study of the changes in production and consumption of animal and vegetable fats and oils is under way. At no previous period in the 27 years of the Institute activities have economic questions been so numerous or important.

An analysis of changes in national agricultural policies during the past 10 years is also about completed, and will be issued this spring. In the new development is the study of the tropical and semitropical crops, each of which offers peculiar problems. These crops include cotton, sugar, rice, coffee, tea, and citrus fruits.

J. CLYDE MARQUIS.

## Measures of Domestic Demand

[1924-29=100]

	January				Percent change		
	1929	1933	1937	1938	1937-38	1933-38	1929-38
National income.....	104.9	59.5	92.6	87.6	-5	+47	-16
Nonagricultural income:							
Total.....	105.1	62.6	92.8	89.3	-4	+43	-15
Per capita.....	100.9	58.1	83.0	79.2	-5	+36	-22
Factory pay rolls:							
Total.....	104.3	40.9	92.3	72.5	-21	+77	-30
Per employed wage earner.....	101.2	63.6	93.3	85.7	-8	+35	-15
Industrial production:							
Total.....	111.4	60.9	106.7	75.8	-29	+24	-31
Factories processing farm products.....	107.8	90.9	112.6	86.0	-24	-5	-20
Other factory production.....	114.1	44.9	104.4	65.4	-37	+46	-43
Construction activity:							
Contracts awarded, total.....	99.2	18.2	52.1	45.5	-13	+150	-54
Contracts awarded, residential.....	86.9	7.2	40.3	22.4	-44	+211	-74
Employment in production of building materials.....	96.7	34.7	63.8	52.1	-18	+50	-46
Cost of living:							
Food.....	98.9	60.3	81.5	77.3	-5	+28	-22
"All other items".....	98.4	82.5	83.2	86.0	+3	+4	-13
Purchasing power of nonagricultural income per capita:							
For food.....	102.0	96.4	101.8	102.5	+1	+6	+1
For "all other items".....	102.5	70.4	99.8	92.1	-8	+31	-10

NOTE.—All indexes adjusted for seasonal variation except "Cost of living."

# General Trend of Prices and Wages

[1910-14=100]

Year and month	Whole-sale prices of all commodities <sup>1</sup>	Industrial wages <sup>2</sup>	Prices paid by farmers for commodities used in <sup>3</sup> —			Farm wages	Taxes <sup>4</sup>
			Living	Production	Living and production		
1920.....	225	222	222	174	201	239	209
1921.....	142	203	161	141	152	150	223
1922.....	141	197	156	139	149	146	224
1923.....	147	214	160	141	152	166	228
1924.....	143	218	159	143	152	163	228
1925.....	151	223	164	147	157	168	232
1926.....	146	229	162	146	155	171	232
1927.....	139	231	159	145	153	170	238
1928.....	141	232	160	148	155	169	239
1929.....	139	236	158	147	153	170	241
1930.....	126	226	148	140	145	152	238
1931.....	107	207	126	122	124	116	217
1932.....	95	178	108	107	107	86	188
1933.....	96	171	109	108	109	80	161
1934.....	109	182	122	125	123	90	153
1935.....	117	191	124	126	125	98	155
1936.....	118	199	122	126	124	107	156
1937.....	126	215	128	135	130	120	-----
1937							
January.....	125	209	-----	-----	130	103	-----
February.....	126	211	-----	-----	132	-----	-----
March.....	128	218	127	139	132	-----	-----
April.....	128	219	-----	-----	134	112	-----
May.....	128	219	-----	-----	134	-----	-----
June.....	127	220	129	141	134	-----	-----
July.....	128	218	-----	-----	133	123	-----
August.....	128	220	-----	-----	132	-----	-----
September.....	128	215	129	132	130	-----	-----
October.....	125	214	-----	-----	128	126	-----
November.....	122	205	-----	-----	127	-----	-----
December.....	119	207	126	127	126	-----	-----
1938							
January.....	118	201	-----	-----	<sup>5</sup> 126	111	-----

Year and month	Index numbers of farm prices [August 1909-July 1914=100]							Ratio of prices received to prices paid
	Grains	Cotton and cottonseed	Fruits	Truck crops	Meat animals	Dairy products	Chick-ens and eggs	
1920.....	232	248	191	-----	174	198	223	211
1921.....	112	101	157	-----	109	156	162	125
1922.....	106	156	174	-----	114	143	141	132
1923.....	113	216	137	-----	107	159	146	142
1924.....	129	212	125	150	110	149	149	143
1925.....	157	177	172	153	140	153	163	156
1926.....	131	122	138	143	147	152	159	145
1927.....	128	128	144	121	140	155	144	139
1928.....	130	152	176	159	151	158	153	149
1929.....	120	144	141	149	156	157	162	146
1930.....	100	102	162	140	133	137	129	126
1931.....	63	63	98	117	92	108	100	87
1932.....	44	47	82	102	63	83	82	65
1933.....	62	64	74	105	60	82	75	70
1934.....	93	99	100	103	68	95	89	90
1935.....	103	101	91	127	118	108	117	108
1936.....	108	100	100	113	121	119	115	114
1937.....	126	95	122	122	132	124	111	121
1937								
February.....	146	108	127	143	126	126	101	127
March.....	145	116	133	131	129	125	102	128
April.....	154	117	142	127	130	120	104	130
May.....	149	112	152	139	133	116	96	128
June.....	139	107	157	124	137	113	95	124
July.....	139	106	145	96	144	116	102	125
August.....	119	90	123	104	151	119	109	123
September.....	111	74	121	117	144	123	119	118
October.....	93	67	99	130	136	128	127	112
November.....	85	65	88	124	120	132	135	107
December.....	86	64	76	112	111	136	127	104
1938								
January.....	91	66	70	101	110	128	113	102
February.....	89	68	68	121	110	121	94	97

<sup>1</sup> Bureau of Labor Statistics Index with 1926=100, divided by its 1910-14 average of 68.5.

<sup>2</sup> Average weekly earnings, New York State factories. June 1914=100.

<sup>3</sup> These indexes are based on retail prices paid by farmers for commodities used in living and production reported quarterly for March, June, September, and December. The indexes for other months are interpolations between the successive quarterly indexes.

<sup>4</sup> Index of farm real estate taxes, per acre, 1913=100.

<sup>5</sup> Preliminary.